38. (New) The method of claim 35, wherein for each of the plurality of detection criteria there exists in the degraded digital content a group of neighboring points, wherein said adjusting means adjusts, for each group, each member of the group of neighboring points.

a3

39. (New) The method of claim 16 wherein the self-synchronizing degradation comprises intentional degradation.

REMARKS

With this Amendment claims 1-4, 16 and 21-39 are pending in the present application. Claims 1, 16, 21 and 30 are independent claims.

Claims 5-15 and 17-20 have been cancelled herein without prejudice to prosecuting these claims in a continuing application. (Hence, the outstanding rejections of these claims are considered moot. Nevertheless, applicant explicitly traverses the rejections with respect to canceled claims 5-15 and 17-20.).

Claims 1-4 and 16 have been amended in accordance with the specification and its equivalents.

Claims 21-39 are newly presented and are clearly supported by the application as filed.

Applicant submits that no new matter has been added by this Amendment.

Rejections

Applicant appreciates the Examiner's careful formal review of claims 1-4 and 16. Each of these claims stand rejected under 35 U.S.C. § 112 for minor formal issues. The Examiner will note that the amendments to claims 1-4 and 16 address these formal issues. Accordingly, we respectfully request that the outstanding 35 U.S.C. § 112 rejections be withdrawn.

Claims 1 and 16 stand rejected as being anticipated by U.S. Patent No. 5,630,044 ("Suzuki"). Applicant respectfully traverses these rejections.

Claim 1 in view of Suzuki

Claim 1 is believed patentable over Suzuki.

In particular, Suzuki is not understood to teach or suggest a combination including a process to *intentionally degrade original digital data*. The method includes steps of: *searching the original digital data for detection criteria*; and *after locating detection criteria, adjusting at least one neighboring point associated with the detection criteria*. The original digital data is *degraded in quality* by said adjusting step, *but the original digital data is recoverable from the intentionally degraded digital data*.

(If the Office decides to maintain its rejection, the Office is requested to point to precise language in Suzuki that that Office believes teaches claim 1's combination of features, so that these features can be expressly addressed in an appeal brief. Suzuki's cited passages, i.e., columns 1-3, are not understood to teach or suggest the inventive combination.).

Claim 1 is believed to be in condition for allowance. Favorable consideration is requested.

Claim 16 in view of Suzuki

Claim 16 is believed patentable over Suzuki.

Moreover, the Office Action has failed to establish that Suzuki teaches all of the limitations as recited in claim 16. For example, the Office Action at page 7, second paragraph of section 7, states that "all the limitations of this claim [16] have been noted in the rejection of claim 1". Applicant respectfully disagrees. In particular, the claimed feature of "self-synchronizing degradation" was not discussed with respect to claim 1.

Claim 16 relates to an apparatus including a logic processor, and a storage unit. The storage unit includes means for analyzing digital content, wherein the *digital content has been transformed with a self-synchronizing degradation from an original state of the digital content*, and *means for recovering the original state of the digital content from the self-synchronized degraded digital content*.

Suzuki is not understood to teach or suggest such an inventive combination.

Claim 16 is believed to be in condition for allowance. Favorable consideration is respectfully requested.

Claim 21

Newly presented claim 21 is also believed patentable over the cited art.

In particular, the cited art is not understood to teach or suggest a combination including a method of *self-synchronization of degraded digital content*. The degraded digital content including degradation from an original state of the digital content. The method including the steps of: analyzing the degraded digital content to identify *a plurality of detection criteria, wherein for each of the plurality of detection criteria there exists in the degraded digital content a group of neighboring points*; and *for each group of neighboring points, adjusting each member of a group of neighboring points according to a predetermined process*. The predetermined process corresponds with a process used to degrade the digital content from the original state, and said adjusting step helps to restore the degraded digital content to the original state.

Suzuki is not understood to teach or suggest the above combination of features. Shyu (U.S. Patent No. 6,021,391) and Paneth et al. (U.S. Patent No. 5,778,055) are also deficient in this regard. (Applicant also questions the priority of combining these documents in the manner suggested in the Office Action.).

Accordingly, claim 21 is believed to be in condition for allowance.

Claim 30

Newly presented claim 30 is believed patentable over the cited art.

Indeed, the cited art is not understood to teach or suggest a combination including a method of *self-synchronization of intentionally degraded digital content*. The intentionally degraded digital content including *intentional degradation from an original state of the digital content*. The method including the steps of: *analyzing the intentionally degraded digital content to identify a plurality of detection criteria; and for each of the plurality of detection criteria, adjusting the intentionally degraded digital content according to a predetermined process*. The predetermined process corresponds with a process used to intentionally degrade the digital content from the original state.

Suzuki is not understood to teach or suggest the above combination of features. Shyu and Paneth et al. are also deficient with respect to the inventive combination recited in claim 30.

Accordingly, claim 30 is believed to be in condition for allowance. Favorable consideration is requested.

Dependent Claims

The dependent claims are believed allowable in their own right in addition to being dependent upon their respective base claims. The dependent claims recite additional features, which are believed to be distinguishable over the cited art. Individual consideration of each of the dependent claims is respectfully requested.

Information Disclosure Statement

An Information Disclosure Statement ("IDS") and Form 1449 are submitted concurrently herewith, along with a deposit account authorization to cover the appropriate fee. The Examiner will note that most of these documents were cited in a previously submitted IDS. However, the documents are being resubmitted since the August 1, 2002 Office Action was unclear as to whether these document had in fact been considered (see page 2 of the Office Action, paragraph 1: "the information referred to therein has not been considered as to the merits")(emphasis added). Consideration of the documents cited in the IDS is respectfully requested.

Request for Personal Interview

Applicant requests an in-person interview to discuss the amended and newly presented claims in view of the cited art. Should the Examiner pick up this Amendment prior to the scheduling of an interview, the Examiner is requested to contact the undersigned at the phone number given below.

Conclusion

The application is believed to be in condition for allowance. Favorable consideration is requested.

Respectfully submitted,

DIGIMARC CORPORATION

Date: February 3, 2003

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By _____
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Attachments: Marked-up Claims

Marked-up Claims

1. (Amended) A process to intentionally degrade original digital data comprising steps of: [that includes]

searching the original digital data for detection criteria; and

after locating detection criteria, adjusting at least one neighboring point associated with the detection criteria, wherein [point(s). whereby] the original digital data is degraded in quality by said adjusting step, but the original digital data [signal] is recoverable from the intentionally degraded digital data.

2. (Amended) The process of claim 1 in which the detection criteria comprises [involves] a pseudo-random sequence. [sequence, thereby increasing the difficulty to illegally removing the content degradation.]

3. (Amended) The process of claim 1 in which the adjustment of the at least one neighboring point [point(s)] involves a pseudo-random sequence. [sequence, thereby increasing the difficulty to illegally removing the content degradation.]

4. (Amended) The process in claim 1 in which the detection criteria includes a threshold crossing. [crossing, thereby the degradation process is simple and efficient.]

Claims 5-15 (Cancelled)

16. (Amended) An apparatus comprising: [consisting of]

a logic processor; and

a storage unit comprising [with] means for analyzing digital content, wherein the digital content has been transformed with a self-synchronizing degradation from an original state of the digital content, and [a] means for recovering the original state of the digital content from the [to implement the efficient and self-synchronizing] self-synchronized degraded digital content [degradation or recovery process, whereby the apparatus is inexpensive].

Claims 17-20 (Cancelled)

21. (New) A method of self-synchronization of degraded digital content, wherein the degraded digital content comprises degradation from an original state of the digital content, said method comprising the steps of:

analyzing the degraded digital content to identify a plurality of detection criteria, wherein for each of the plurality of detection criteria there exists in the degraded digital content a group of neighboring points; and

for each group of neighboring points, adjusting each member of a group of neighboring points according to a predetermined process, wherein the predetermined process corresponds with a process used to degrade the digital content from the original state, and wherein said adjusting step helps to restore the degraded digital content to the original state.

22. (New) The method of claim 21, wherein the group comprises at least one neighboring point.

23. (New) The method of claim 21, wherein the plurality of detection criteria comprises a pseudo-random sequence.

24. (New) The method of claim 21, wherein the plurality of detection criteria includes a threshold crossing.

25. (New) The method of claim 21, wherein the predetermined process is an inverse of the process used to degrade the digital content from the original state.

26. (New) The method of claim 21, wherein the digital content comprises audio content.

27. (New) The method of claim 21, wherein the digital content comprises video content.

28. (New) The method of claim 21, wherein the digital content comprises image content.

29. (New) The method of claim 21, wherein the degraded digital content is intentionally degraded.

30. (New) A method of self-synchronization of intentionally degraded digital content, wherein the intentionally degraded digital content comprises intentional degradation from an original state of the digital content, said method comprising the steps of:

analyzing the intentionally degraded digital content to identify a plurality of detection criteria; and

for each of the plurality of detection criteria, adjusting the intentionally degraded digital content according to a predetermined process, wherein the predetermined process corresponds with a process used to intentionally degrade the digital content from the original state.

31. (New) The method of claim 30, wherein said adjusting step helps to restore the intentionally degraded digital content to the original state.

32. (New) The method of claim 30, wherein for each of the plurality of detection criteria there exists in the degraded digital content a group of neighboring points, wherein said adjusting step comprises for each group adjusting each member of the group of neighboring points.

33. The method of claim 30, wherein the digital content comprises audio.

34. The method of claim 30, wherein the digital content comprises video.

35. (New) The method of claim 16, wherein said means for recovering the original state of the digital content comprises means for analyzing the degraded digital content to identify a plurality of detection criteria, and means for adjusting for each of the detection criteria the degraded digital content according to a predetermined process.

36. (New) The method of claim 35, wherein the predetermined process corresponds with a process used to degrade the digital content from the original state.

37. (New) The method of claim 36, and wherein said adjusting means helps to restore the degraded digital content to the original state.

38. (New) The method of claim 35, wherein for each of the plurality of detection criteria there exists in the degraded digital content a group of neighboring points, wherein said adjusting means adjusts, for each group, each member of the group of neighboring points.

39. (New) The method of claim 16 wherein the self-synchronizing degradation comprises intentional degradation.